

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-9 (canceled).

10. (New) A sensor comprising a sensor element (2), at least one digital interface (5), and means (6) for transmitting a fault pattern via the at least one digital interface (5).

11. (New) The sensor according to Claim 10, wherein an eight-bit word (MONI) in a data telegram is provided for the fault message.

12. (New) The sensor according to Claim 11, wherein for generation of the fault message, means (4) are present for monitoring at least one phase-lock loop of the sensor or at least one control voltage in terms of a first predefined range, or the output values of at least one analog/digital converter in terms of a second predefined range, or output values of at least one digital/analog converter in terms of a third predefined range, or dynamic limits of at least one capacitance/voltage converter in terms of a fourth predefined range, or at least one offset controller in terms of a fifth predefined range, or at least one common-mode controller in terms of departure from a sixth predefined range, or at least one variable representing a sensor oscillation in terms of a seventh predefined range, or impermissible values of at least one counter as defined, a respective value being storable in a respective register in the event of a fault.

13. (New) The sensor according to Claim 12, wherein the respective register is reset after an end of the respective fault.

14. (New) A control unit comprising the sensor (1) according to claim 10, and a processor (7) that receives at least one signal from the sensor (1) via the at least one digital interface (5), wherein the processor (7) evaluates the at least one sensor signal as a function of the fault pattern.

15. (New) The control unit according to Claim 14, wherein the sensor (1) is disposed inside a housing of the control unit (10).

16. (New) A method for monitoring at least one sensor (1), the at least one sensor (1) transmitting a fault pattern to a processor (7).

17. (New) The method according to Claim 16, wherein a signal from the sensor is used for a restraint system (9).

18. (New) The method according to Claim 16, wherein a signal from the sensor is conveyed to a vehicle dynamics system.